

All District Engineers, Walter S. Kos & Miguel d'Escoto

Michael L. Hine

Special Provision for Bituminous Concrete Surface Course

January 10, 2003

This special provision was developed by the Bureau of Materials and Physical Research to provide a uniform basis for plan quantity of bituminous concrete surface course and to allow for adjustment of that quantity based upon the actual unit weight of the mix. It is being revised to account for specialty mix designs, such as stone matrix asphalt (SMA), which only allow one specific coarse aggregate.

Plan quantities for bituminous concrete surface course will still be calculated using a unit weight of 59.8 kg/sq m/25 mm thickness (112.0 lb/sq yd/in. thickness) unless a specialty mix design as described above is specified. For the specialty mix, plan quantity will be based upon the anticipated unit weight determined by the district. The unit weight(s) used must be shown on the plans (add this to the Mixture Design Table).

Once the project is under contract and a mix design developed and approved, the Engineer will calculate the Adjusted Plan Quantity. The Adjusted Plan Quantity becomes the quantity to be placed, subject to the 103% limitation.

This special provision should be inserted into all contracts using bituminous concrete surface courses.

The districts should include the BDE Check Sheet marked with the applicable special provisions for the April 25, 2003 and subsequent lettings. The Project Development and Implementation Section will include the paper copy in the contract.

This special provision will be available on the transfer directory January 10, 2003.

80050m

## BITUMINOUS CONCRETE SURFACE COURSE (BDE)

Effective: April 1, 2001

Revised: April 1, 2003

Replace the fourth paragraph of Article 406.23(b) of the Standard Specifications with the following:

“Mixture for cracks, joints, flangeways, leveling binder (machine method), leveling binder (hand method) and binder course in excess of 103 percent of the quantity specified by the Engineer will not be measured for payment.

Surface course mixture in excess of 103 percent of adjusted plan quantity will not be measured for payment. The adjusted plan quantity for surface course mixtures will be calculated as follows:

Adjusted Plan Quantity = C x quantity shown on the plans or as specified by the Engineer.

where C =      metric:  $C = \frac{G_{mb} \times 24.99}{U}$       English:  $C = \frac{G_{mb} \times 46.8}{U}$

and where:

$G_{mb}$  = average bulk specific gravity from approved mix design.

$U$  = Unit weight of surface course shown on the plans in kg/sq m/25 mm (lb/sq yd/in.), used to estimate plan quantity.

24.99 = metric constant.

46.8 = English constant.

If project circumstances warrant a new surface course mix design, the above equations shall be used to calculate the adjusted plan quantity for each mix design using its respective average bulk specific gravity.”